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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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EXAMINER	
ABDALLA, KHALID M	
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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No.	Applicant(s)	
	10/583,668	SCHELEN ET AL.	
	Examiner	Art Unit	
	KHALID ABDALLA	2475	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE *3* MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *21 June 2006*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-9 and 11-16* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-9 and 11-16* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☒ All b)☐ Some * c)☐ None of:

1.☒ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

Claim Rejections - 35 USC § 103

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

2. Claims 1-8 and 11-16 are rejected under 35 U.S.C. 103(a) as being unpatentable over Bodin et al (US 20060036719 a1) in view of Garcia et al (US 20040052259 A1).

Regarding claim1 Bodin et al disclose A method for controlling a forwarding quality in a data network (data network is defined as a switched network forwarding data units between network interfaces of network nodes using identifiers associated with the target circuit being setup through the network e.g., as in Asynchronous Transfer Mode (ATM networks and in Multiprotocol Label Switching (MPLS) networks, or a datagram network forwarding data units between network interfaces of network nodes see [0039]lines 1-6) , the method comprising: performing, by a measurement manager (Fig. 1 shows NRM), end-to-end measurements between a first node, in a first access network and a second node in a second access network in said data network, the end-to-end measurements providing timing information of traffic flowing between the first node and the second node nodes in said data network (the functionality of the NRMs is basically the same independently whether the NRM is managing the link layer, i.e. a subnet-NRM, or the IP layer in terms of capabilities for resource management in accordance with the present invention. The difference lies in their responsibilities and

communication relations with other entities. The responsibility of a subnet-NRM is resource management including topology awareness and path-sensitive admission control for a specific subnet see [0053]); obtaining, by a Network Resource Manager (NRM), information of network topology; -transferring the obtained information of the network topology from the NRM to the measurement manager or transferring a result of the performed end-to-end measurements from the measurement manager to the NRM (comprises means for delivering detailed information, e.g. topology maps, traffic measurement information, alarms, etc. of the network domain that is controlled by the NRM. The NC may also comprise means for receiving detailed information on the traffic conditioner to be configured in the network domain. The data exchanged between an NC and an NRC may include: topology maps, traffic measurements, traffic conditioning information, etc see [0067] lines 1-7) .Bodin et al does not disclose -combining said end-to-end measurements and said obtained information of the network topology into a first information set; and detecting correlated and uncorrelated paths using the first information set.. Garcia et al from the same or similar field of endeavor teach -combining said end-to-end measurements and said obtained information of the network topology into first information set (the type field indicative of "one-way end-to-end delay" and a timestamp value. The delay to be measured is the total time during which the packet is traversing the link(s) between departing from the sending node's link interface and arriving at the destination node's link interface (known as "wire time"), so the known or estimated final processing time in the node between obtaining the timestamp value and departure of the packet from the interface should be

added to the timestamp before it is inserted into the packet's header. If desired another TLV encoded option can be included to provide an address (e.g. for a network management node) to which the delay measurement result should be forwarded after calculation at the receiving node see [0071]) and -detecting correlated and uncorrelated paths using the first information set (correlation of data from path endpoints is not necessary, reducing the complexity of the measurement system, potentially reducing the amount of measurement data that must be transferred across the network, and facilitating speedier availability of the measurement results see [0091] lines 1-4). Thus it would have been obvious to one of ordinary skill in the art to implement the method of Garcia et al in the system of Bodin et al .The method of Bodin et al can be implemented on any type of method -combining said end-to-end measurements and said obtained information of the network topology into a first information set; and -detecting correlated and uncorrelated paths using the first information set which is taught by Garcia et al with a motivation in order to provide Measuring network operational parameters as experienced by network operational traffic.

Regarding claim2 Garcia et al teach The method according to claim 1, comprising the further step of: combining said first information set with information on data flow presence at individual out-interfaces (the sending node's link interface and arriving at the destination node's link interface (known as "wire time"), so the known or estimated final processing time in the node between obtaining the timestamp

value and departure of the packet see 0070]) also (thus identification of packets (e.g. at network ingress points) in a desired flow or stream of packets conforming to the same characteristics, for the insertion of an extension header (with its option fields), can be controlled by arbitrarily complex rules involving for example a combination of any of: source and destination IP addresses and prefixes; transport protocols; source and destination port numbers included in transport protocols like TCP and UDP; traffic class; and flow label see [0069] lines 10-16) .Thus it would have been obvious to one of ordinary skill in the art to implement the method of Garcia et al in the system of Bodin et al .The method of Bodin et al can be implemented on any type of method - combining said first information set with information on data flow presence at individual out-interfaces which is taught by Garcia et al with a motivation in order to provide Measuring network operational parameters as experienced by network operational traffic.

Regarding claim3 Bodin et al disclose The method according to claim 1, comprising the further step of: scheduling the transfer of the obtained information of the network topology over time or initiating the transfer of the obtained information of the network topology periodically (The NRM comprises means for keeping track of available resources inside its domain, including topology link resources and service commitments. Moreover, it comprises means for performing admission control for its domain in order to provide services to customers/clients. The topology managed by an NRM in a virtual overlay network or in a VPN may contain some clouds of unknown

"real" topology. The topology managed by an NRM may also have a real topology of routers or switches see [0052] lines 4-11).

Regarding claim4 Garcia et al teach the method according to claim 1, comprising the further step of: -scheduling the transfer of the result of the performed end-to-end measurements over time or initiating the transfer of the result of the performed end-to-end measurements periodically (the type field indicative of "one-way end-to-end delay" and a timestamp value. The delay to be measured is the total time during which the packet is traversing the link(s) between departing from the sending node's link interface and arriving at the destination node's link interface (known as "wire time"), so the known or estimated final processing time in the node between obtaining the timestamp value and departure of the packet from the interface should be added to the timestamp before it is inserted into the packet's header see [0071]).

Regarding claim 5 Bodin et al disclose the method according to claim 1, comprising the further step of requesting the transfer of the obtained information of the network topology explicitly by a master manager (the first network level and a second group of NRMs arranged to control the resources of the second network level, wherein the NRMs of the first group and second group comprise means for exchanging resource requests by using the first addressing scheme see [0029]).

Regarding claim 6 Bodin et al disclose The method according to claim 1, comprising the further step of requesting the transfer of the result of the performed end-to-end measurements explicitly by a master manager (wherein the NRMs of the first group and second group comprise means for exchanging resource requests by using the first

addressing scheme, and wherein the NRMs of the second group further comprise means for performing an address mapping between the first and second addressing schemes, makes it possible to provide a general resource management extending different protocol layers see [0029] lines 4-9).

Regarding claim7 Garcia et al teach The method according to claim 1, comprising the further step of:

triggering the transfer of the obtained information of the network topology by specific events in a slave manager (It is the user traffic itself which carries the measurement and triggering information, so when a packet is observed at each of two monitoring points it is guaranteed that the same packet is involved on both occasions see [0090]) and also (It is also possible to employ some bits in the flow-label field to easily identify and trigger measurement and monitoring behavior as the user traffic containing the inline data is forwarded via nodes en-route to its destination see [0097]).Thus it would have been obvious to one of ordinary skill in the art to implement the method of Garcia et al in the system of Bodin et al .The method of Bodin et al can be implemented on any type of method triggering the transfer of the obtained information of the network topology by specific events in a slave manager which is taught by Garcia et al with a motivation in order to provide Measuring network operational parameters as experienced by network operational traffic.

Regarding claim8 Garcia et al teach The method according to claim 1, comprising the further step of: triggering the transfer of the result of the performed end-to-end measurements by specific events in a slave manager (It is the user traffic itself which

carries the measurement and triggering information, so when a packet is observed at each of two monitoring points it is guaranteed that the same packet is involved on both occasions see [0090]). Thus it would have been obvious to one of ordinary skill in the art to implement the method of Garcia et al in the system of Bodin et al .The method of Bodin et al can be implemented on any type of method triggering the transfer of the result of the performed end-to-end measurements by specific events in a slave manager which is taught by Garcia et al with a motivation in order to provide Measuring network operational parameters as experienced by network operational traffic.

Regarding claim11 Bodin et al disclose The method according to claim 2, comprising the further step of: scheduling the transfer of the obtained information of the network topology over time or initiating the transfer of the obtained information of the network topology periodically (The NRM comprises means for keeping track of available resources inside its domain, including topology link resources and service commitments. Moreover, it comprises means for performing admission control for its domain in order to provide services to customers/clients. The topology managed by an NRM in a virtual overlay network or in a VPN may contain some clouds of unknown "real" topology. The topology managed by an NRM may also have a real topology of routers or switches see [0052] lines 4-11)

Regarding claim12 Garcia et al disclose The method according to claim 2, comprising the further step of: scheduling the transfer of the result of the performed end-to-end measurements over time or initiating the transfer of the result of the performed end-to-end measurements periodically (the type field indicative of "one-way

end-to-end delay" and a timestamp value. The delay to be measured is the total time during which the packet is traversing the link(s) between departing from the sending node's link interface and arriving at the destination node's link interface (known as "wire time"), so the known or estimated final processing time in the node between obtaining the timestamp value and departure of the packet from the interface should be added to the timestamp before it is inserted into the packet's header see [0071]).

Regarding claim 13 Bodin et al disclose The method according to claim 2, comprising the further step of requesting the transfer of the obtained information of the network topology explicitly by a master manager (the first network level and a second group of NRMs arranged to control the resources of the second network level, wherein the NRMs of the first group and second group comprise means for exchanging resource requests by using the first addressing scheme see [0029]).

Regarding claim 14 Bodin et al disclose The method according to claim 2, comprising the further step of requesting the transfer of the result of the performed end-to-end measurements explicitly by a master manager (wherein the NRMs of the first group and second group comprise means for exchanging resource requests by using the first addressing scheme, and wherein the NRMs of the second group further comprise means for performing an address mapping between the first and second addressing schemes, makes it possible to provide a general resource management extending different protocol layers see [0029] lines 4-9).

Regarding claim15Garcia et al teach The method according to claim 2, comprising the further step of triggering the transfer of the obtained information of the network

topology by specific events in a slave manager (It is the user traffic itself which carries the measurement and triggering information, so when a packet is observed at each of two monitoring points it is guaranteed that the same packet is involved on both occasions see [0090]) and also (It is also possible to employ some bits in the flow-label field to easily identify and trigger measurement and monitoring behavior as the user traffic containing the inline data is forwarded via nodes en-route to its destination see [0097]) Thus it would have been obvious to one of ordinary skill in the art to implement the method of Garcia et al in the system of Bodin et al .The method of Bodin et al can be implemented on any type of method triggering the transfer of the obtained information of the network topology by specific events in a slave manager which is taught by Garcia et al with a motivation in order to provide Measuring network operational parameters as experienced by network operational traffic.

Regarding claim16 Garcia et al teach The method according to claim 2, comprising the further step of triggering the transfer of the result of the performed end-to-end measurements by specific events in a slave manager (It is the user traffic itself which carries the measurement and triggering information, so when a packet is observed at each of two monitoring points it is guaranteed that the same packet is involved on both occasions see [0090]). Thus it would have been obvious to one of ordinary skill in the art to implement the method of Garcia et al in the system of Bodin et al .The method of Bodin et al can be implemented on any type of method triggering the transfer of the result of the performed end-to-end measurements by specific events in a slave

manager which is taught by Garcia et al with a motivation in order to provide Measuring network operational parameters as experienced by network operational traffic.

3. Claims 9 are rejected under 35 U.S.C. 103(a) as being unpatentable over Bodin et al (US 20060036719 a1) in view of Garcia et al (US 20040052259 A1) as applied in claim 1 above and further in view of Knees et al (US 20050125518 A1).

Regarding claim9 Bodin et al disclose a computer program product for performing the steps of claim the computer program product (a method and a computer program product see [0001]).Bodin et al and Garcia et al does not disclose a compute-readable storage medium with a computer program embodied thereon. Knees et al from the same or similar field of endeavor teach a compute-readable storage medium with a computer program embodied thereon (A machine readable medium can include software or a computer program or programs for causing a computing device to perform the exemplary method see [002]). Thus it would have been obvious to one of ordinary skill in the art to implement the method of Knees et al in the system of Bodin et al and Garcia et al .The method of Bodin et al and Garcia et al can be implemented on any type of method a compute-readable storage medium with a computer program embodied thereon which is taught by Knees et al with a motivation in order to provide a computer readable storage medium to support network operational traffic.

Conclusion

4. Any inquiry concerning this communication or earlier communications from the examiner should be directed to KHALID ABDALLA whose telephone number is (571)270-7526. The examiner can normally be reached on Monday - Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Dang Ton can be reached on 571-272-3171. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/KHALID ABDALLA/

Examiner, Art Unit 2475

/DANG T TON/

Supervisory Patent Examiner, Art Unit 2475/D. T. T./

Supervisory Patent Examiner, Art Unit 2475